

## **2.4 Non-Emergency Fire Fighting (Fire & Life Safety Services)**

### **2.4.1 Introduction**

This program component is applicable to all Divisions associated with non-emergency fire fighting activities. The goal of this component is to reduce the impact of non-emergency activities on storm water quality. This program must meet the requirements of the San Diego County Municipal Storm Water Permit (Municipal Permit), as summarized in Table 2.4-1.

**Table 2.4-1. Permit Requirements – Non-Emergency Fire Fighting.**

<b>Section</b>	<b>Requirement (Summary)</b>	<b>Municipal Permit Section</b>
2.4.2	Designate and implement BMPs to protect water quality from non-emergency fire fighting flows	B.4
2.4.2	Implement and designate a minimum Educational Program requirement for all pertinent target communities	F.4.a F.4.b
2.4.3	Develop a budget for storm water expenditures for each fiscal year covered by the Municipal Permit	F.8
2.4.4	Document activities for Jurisdictional Urban Runoff Management Program Annual Report	I

The objectives of this component are to:

- Reduce the introduction of potential pollutants into the storm drain system during training activities related to emergency response preparedness;
- Minimize the discharge of pollutants associated with the maintenance of department facilities and equipment (addressed in 2.1.1 Buildings, 2.1.8 Parking Facilities, and 2.1.13 Vehicle Maintenance/Equipment Yards and Material Storage Facilities, and summarized here);
- Develop and deliver an employee training program to implement storm water BMP's which reduce storm water discharges as practicable;
- Identify a phased implementation schedule and associated estimated costs needed to implement the (update) component through the five-year life of the Municipal Permit;
- Develop and implement a system to document activities conducted by this department as required for the Non-Emergency Fire Fighting component of the annual report.

## **2.4.2 Activities**

In order to effectively implement the procedures and education and training outlined below, the Fire & Life Safety Services Department shall maintain a designated coordinator or coordinators to maintain a working understanding of the Municipal Permit so that he/she can provide guidance to department management and staff in implementing the Non-Emergency Fire Fighting of the Urban Runoff Management Plan. The name(s) of the coordinator shall be submitted to the Storm Water Program by Thursday, February 21, 2002—the Urban Runoff Management Program implementation date. The Fire & Life Safety Services Department shall provide the names of new representatives whenever the designated coordinator is replaced. The Storm Water Program will interact with the coordinator(s) to provide the latest Municipal Permit information and to request annual compliance reports from the Fire & Life Safety Services Department.

The Fire & Life Safety Services Department will conduct the following activities and implement the storm water BMPs identified below. In addition, the Fire & Life Safety Services Department will implement the City-wide storm water BMP requirements for operation and maintenance of buildings, parking facilities and vehicle maintenance/materials storage facilities used by the Fire & Life Safety Services Department (see the Buildings, Parking Facilities, and Vehicle Maintenance/Equipment Yards and Materials Storage Facilities components of the Urban Runoff Management Plan).

- Identify and implement activity-specific storm water BMPs for fire and hazard prevention training activities;
- Implement storm water BMPs for Fire & Life Safety Services vehicle and equipment operation and maintenance activities;
- Develop and implement education and training programs for Fire & Life Safety Services staff.

### Activity specific storm water BMP's

Separate storm water BMP lists are provided for each division within the department.

#### *Emergency Medical Services BMP's*

Apparatus maintenance will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.

1. Vehicles will be cleaned where runoff will be directed to sewer system.
2. Vehicles will be cleaned where runoff will be directed to drain with separator system.
3. Vehicles will be cleaned where runoff will pool and evaporate.

4. Vehicles will be cleaned where runoff will filter through landscaped area.
5. Spill kits will be available to provide prompt containment and cleanup of leaking or spilled vehicle fluids.
6. Use of detergent will be minimized and cleaning solutions will be disposed of to sewer system.
7. Cleaning solutions used on response equipment shall be disposed of in a utility sink.

#### *Fire and Hazard Prevention BMP's*

Apparatus maintenance will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable. Staff will be directed to clean vehicles only at the following locations. This will eliminate discharges to the storm water system.

1. Police Department substation in automatic car wash.
2. At commercial car wash.

#### *Operations BMP's*

A. Training activities which simulate emergency responses will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.

1. Water flows will be directed to landscaped areas whenever possible.
2. When flowing water to an area where landscaping does not prevent runoff, the area selected shall be surveyed by the Officer in charge prior to training activities to ensure that debris will not enter into the storm water system as a result of the drill.
3. Areas that have debris, which could potentially enter the storm water system as a result of the drill activities, will not be used for training until debris has been removed. Referrals to the Department responsible for the debris removal will be made as needed.
4. Live fire training activities will be pre-planned to allow integration of barriers to off site runoff which could contribute to storm water discharges.

B. Apparatus and response equipment maintenance will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.

1. Vehicles and equipment will be cleaned where runoff will be directed to the sewer system.

2. Vehicles and equipment will be cleaned where runoff will be directed to drain with separator system.
  3. Vehicles and equipment will be cleaned where runoff will pool and evaporate.
  4. Vehicles and equipment will be cleaned where runoff will filter through a landscaped area.
  5. Spill kits will be available to provide prompt containment and cleanup of leaking or spilled vehicle fluids.
  6. Use of detergent will be minimized and cleaning solutions will be disposed of to the sewer system.
- C. Maintenance of facilities will be performed in a manner which eliminates discharges to storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
1. Hardscaped areas such as apparatus floors, driveways, patios, and walkways will be swept to remove debris. Debris will be placed in the trash.
  2. Landscaped areas will be maintained as required to reduce introduction of leaves and other landscape waste into the storm water system.
  3. Irrigation systems will be monitored and maintained as required to reduce irrigation water from going off site.
  4. Spills will be cleaned up using spill kits provided at the work site, and disposal of spilled material will be in accordance with applicable regulations.
  5. Spills which require a clean up beyond the ability of the on site employees shall be reported to the Facilities Maintenance Division to arrange for the appropriate resources.
  6. Maintenance and repair of structures will be done using methods which do not contribute to the storm water conveyance system.
- D. Post emergency rehabilitation of response equipment shall be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
1. Tools, fire hoses, ladders and other equipment utilized at the scene of an emergency will be restored to a response ready state in a manner which does not delay the ability of the apparatus to be available for another emergency response. The use of water which could contribute to storm water discharges shall be used unless another practical and immediately available method is identified.

#### *Maintenance and Material BMP's*

- A. Apparatus maintenance will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes

discharges to the storm water system when elimination of discharges is practicably unavoidable.

1. Vehicles will be cleaned where runoff will be directed to the sewer system.
  2. Vehicles will be cleaned where runoff will be directed to drain with separator system.
  3. Spill kits will be available to provide prompt containment and cleanup of leaking or spilled vehicle fluids.
  4. Use of detergent will be minimized and cleaning solutions will be disposed of to sewer system.
- B. Maintenance of facilities will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
1. Hardscaped areas such as apparatus floors, driveways, patios, and walkways will be swept to remove debris. Debris will be placed in the trash.
  2. Spills will be cleaned up using spill kits provided at the work site, and disposal of spilled material will be in accordance with applicable regulations.
  3. Spills which require a clean up beyond the ability of the on site employees shall be reported to the Assistant Facilities Maintenance Director to arrange for the appropriate resources.
  4. Maintenance and repair of structures will be done using methods which do not contribute to discharges to the storm water conveyance system.

#### *Training and Safety BMP's*

- A. Apparatus and response equipment maintenance will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
1. Vehicles and equipment will be cleaned where runoff will be directed to the sewer system.
  2. Vehicles and equipment will be cleaned where runoff will be directed to drain with separator system.
  3. Drains in a vehicle cleaning area shall be outfitted with a hydro screen fabric barrier to collect debris.
  4. Spill kits will be available to provide prompt containment and cleanup of leaking or spilled vehicle fluids.
  5. Vehicles and equipment will be washed where runoff will pool and evaporate.
  6. Vehicles and equipment will be washed where runoff will filter through landscaped area.

7. Use of detergent will be minimized and cleaning solutions will be disposed of to sewer system.
- B. Maintenance of facilities will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
1. Hardscaped areas such as apparatus floors, driveways, patios, and walkways will be swept to remove debris. Debris will be placed in the trash.
  2. Landscaped areas will be maintained as required to reduce introduction of leaves and other landscape waste into the storm water system.
  3. Irrigation systems will be monitored and maintained as required to reduce irrigation water from going off site.
  4. Spills will be cleaned up using spill kits provided at the work site, and disposal of spilled material will be in accordance with applicable regulations.
  5. Spills which require a clean up beyond the ability of the on site employees shall be reported to the Facilities Maintenance Manager to arrange for the appropriate resources.
  6. Maintenance and repair of structures will be done using methods which do not contribute to discharges to the storm water conveyance system.
- C. Training activities which simulate emergency responses will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
1. Water flows will be directed to landscaped areas whenever possible.
  2. When flowing water to an area where landscaping does not prevent runoff, the area selected shall be surveyed by the Officer in charge prior to training activities to ensure that debris will not enter into the storm water system as a result of the drill.
  3. Areas which have debris which could potentially enter the storm water system as a result of the drill activities will not be used for training until the debris has been removed.
  4. Storm water drains where training is routinely practiced shall be fitted with a hydro screen fabric barrier and surrounded by sand bags to collect any run-off generated debris. These drains will be inspected weekly and cleaned as needed. These drains will also be inspected during rain events to ensure that the fabric and sand bags are not blocking flows and creating a potential flood hazard.
  5. Live fire training activities will be pre-planned to allow integration of barriers to control off site runoff which could contribute to discharges to the storm water conveyance system.

### *Lifeguard BMP's*

- A. Training activities which simulate emergency responses will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
  - 1. Live fire training activities will be pre-planned to allow integration of barriers to off site runoff which could contribute to storm water discharges.
- B. Maintenance of facilities will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
  - 1. Hardscaped areas such as apparatus floors, driveways, patios, and walkways will be swept to remove debris. Debris will be placed in the trash.
  - 2. Landscaped areas will be maintained as required to reduce introduction of leaves and other landscape waste into the storm water system.
  - 3. Irrigation systems will be monitored and maintained as required to reduce irrigation water from going off site.
  - 4. Spills will be cleaned up using spill kits provided at the work site, and disposal of spilled material will be in accordance with applicable regulations.
  - 5. Spills which require a clean up beyond the ability of the on site employees shall be reported to the Facilities Maintenance Manager to arrange for the appropriate resources.
  - 6. Maintenance and repair of structures will be done using methods which do not contribute discharges to the storm water conveyance system.
- C. Apparatus and response equipment maintenance will be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
  - 1. Vehicles and equipment will be cleaned where runoff will be directed to the sewer system.
  - 2. Vehicles and equipment will be cleaned where runoff will be directed to a drain with a separator system.
  - 3. Drains in vehicle cleaning areas shall be outfitted with a hydro screen fabric barrier to collect debris.
  - 4. Vehicles and equipment will be washed where runoff will pool and evaporate.
  - 5. Vehicles and equipment will be washed where runoff will filter through a landscaped area.

6. Use of detergent will be minimized and cleaning solutions will be disposed of to the sewer system.
  7. Spill kits will be available at each work site to provide prompt containment and cleanup of leaking or spilled vehicle fluids.
- D. Post emergency rehabilitation of response equipment shall be performed in a manner which eliminates discharges to the storm water system whenever practicable, and minimizes discharges to the storm water system when elimination of discharges is practicably unavoidable.
1. Tools, fire hoses, and other equipment utilized at the scene of an emergency will be restored to a response ready state in a manner which does not delay the ability of the apparatus to be available for another emergency response. The use of water which could contribute to storm water discharges shall be used unless another practical and immediately available method is identified.

### Education & Training

#### *1. Internal/Municipal Education:*

The City of San Diego plans to conduct two levels of education and training for staff: General and Activity Specific. All staff will receive a basic introduction to the issue via a "General Storm Water" workshop created and funded by the General Services Storm Water Pollution Prevention Program. Additionally, those departments or work groups that perform work activities specifically identified in, and affected by, the Permit will create and execute and fund Activity Specific training sessions to introduce new work processes, functions and behaviors that incorporate the Best Management Practices (BMPs) necessary for staff to prevent illegal discharges into the City's storm water collection and conveyance system and recreational waters. Additionally, the Departments will fund the External Education and Outreach elements in this plan. All education and outreach covered by the permit shall contain the phrase, "Another City of San Diego Think Blue Program protecting our beaches, bays and watersheds."

#### *A) General Storm Water Training Funded By the Storm Water Program*

The General Storm Water workshops, while created by the Storm Water Program, are primarily being given by trainers to the staff of their respective departments. And, Items 2, 3, 4, 5 and 6, below, are the educational materials created for the workshops. A "Train the Trainer" workshop was also created and given by the Storm Water Program (Item 7) to familiarize the trainers on the material and subject matter prior to rolling out the General Training workshop to their department staff.



**Table 2.4-2. Storm Water Program General Training.**

ITEM	AVAILABLE
1. Clean Water Leader/3-Cs BMP Reference Card	July 2001
2. General Storm Water Training Video	October 2001 To be completed by June 2002
3. City Employee Brochure	October 2001
4. Stop Pollution Pad	October 2001
5. Employee Knowledge & Behavior Survey. To be given before and after each General Storm Water Workshop by department trainers	October 2001
6. Frequently Asked Questions for department Trainers	October 2001
7. Train the Trainer Sessions. Training of department trainers on content and materials for the General Storm Water Workshops	September 10-14, 2001
8. Storm Water Newsletter	July/August 2002*

\* Note that Items 1 through 7 occurred in FY 2002, and that Item 8 is slated for Fiscal Year 2003.

**B) Activity Specific BMP Training(s):**

The Fire and Life Safety Services Department will work closely with the Storm Water Program to create a complete training module for staff and to establish a system to update and improve the information and training materials available to staff. The individual Divisions within the department for the appropriate work group(s) will conduct the following training activities:

**Table 2.4-3. Department Training Activities.**

ITEM	AVAILABLE*
1. Activity Specific training/workshops. Tailboard Safety Talks specific to each division will be introduced and distributed. A demonstration will be provided to ensure all personnel are familiar with the proper methods for complying with BMP's applicable to their activities. Employees hired after this session is delivered will be trained on BMP's for the worksite by their immediate supervisor during their employee orientation session.	Completed by February 2003

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ITEM	AVAILABLE*
2. Activity Specific BMP Reference Binders - Each Division will designate staff to develop Activity Specific BMP Reference Binders. Binders will contain training materials for each Tailgate session appropriate for the work group, along with their training records, and other training materials as provided by General Services, Storm Water Program. The binders will be kept at each work site.	Completed by February 2003 and updated as needed
3. Storm Water BMP Bulletin Board Postings in Employee Area(s). Each Division will post on the worksite bulletin board the applicable BMP's for their employees.	February 2003
4. Tailboard Training Sessions - Each Division will designate staff to develop and conduct tailboard training sessions appropriate for their work groups. Tailboard sessions will address all topics as outlined in the BMP's section for that Division.	February 2003

*\* Note the completion dates listed are estimated. Actual completion dates may vary depending upon other program factors.*

### **2.4.3 Phasing**

#### Year 1 (July 1, 2001 – June 30, 2002):

- Prepare/Implement education program;
- Install treatment processes at two new facilities (Stations 37, 44);
- Implement existing and new activities that are considered storm water best management practices

#### Year 2 (July 1, 2002 – June 30, 2003):

- Implement Year 2 storm water BMPs
- Prepare projected storm water budget
- Install treatment processes at one new facility (Station 46);
- Conduct education activities
- Prepare & submit annual activities report

#### Year 3 (July 1, 2003 – June 30, 2004):

- Implement Year 3 storm water BMPs
- Conduct education activities
- Install treatment processes at three new facilities (Stations 12, 31, 29);
- Prepare & submit annual activities report

#### Year 4 (July 1, 2004 – June 30, 2005):

- Implement Year 4 storm water BMPs
- Conduct education activities
- Install treatment processes at three new facilities (Stations 2, 5, 6);
- Prepare & submit annual activities report

#### Year 5 (July 1, 2005 – June 30, 2006):

- Implement Year 5 storm water BMPs
- Conduct education activities
- Install treatment processes at four new facilities (Stations 17, 32, 22 and 54);
- Prepare & submit annual activities report.

Actual implementation of the activities listed above is dependent upon identification of funding in future yearly budgets and City Council approval.

#### 2.4.4 Annual Assessment

Each Division within this Department shall generate and maintain records as required in Section I of the Permit. A point of contact will be identified for each Division. That contact will be responsible for the maintenance of those records. Each Division will prepare an annual report providing documentation of annual activities as outlined in Section 1 of the Municipal Permit. Each Division shall provide to General Services Storm Water Pollution Prevention Program staff documentation as requested for preparation of the Urban Runoff Management Program Annual Report.

The following form is representative of the quantitative and qualitative measures that will be tracked by the Storm Water Program regarding the Non-Emergency Fire Fighting component in order to prepare the Jurisdictional Urban Runoff Management Program annual assessment. *These assessment factors and questions are presented for information only; some questions may be modified prior to each annual assessment period, and not all of the factors or questions below may apply to each component's responsible department(s).* Prior to each fiscal year, a tailored Annual Assessment Form will be distributed to responsible departments, and will include an Excel spreadsheet containing direct and indirect quantitative and qualitative measures similar to the example below. The Storm Water Program will provide a blank copy of the Annual Assessment Form and additional guidance to department management prior to the beginning of each fiscal year. Submission of this report will require department director approval.

#### **Program Assessment Form - Municipal Facilities Operations and Management – Non-Emergency Fire Fighting**

##### **QUANTITATIVE ASSESSMENT:**

Activity	Quantity	Units	Comments
Number of high priority municipal facilities		#	
Number of high priority municipal facilities targeted for inspection		#	Due to calendar-year vs. fiscal year, staffing, budget, etc., as well as Permit Section F.3.b.(6)(d), the number of sites targeted for inspection may be less than the actual number of sites.
Number of high priority municipal facilities inspected		#	Number of sites (not the number of inspections, which may or may not be the same).
Number of medium and low priority municipal facilities inspected		#	See above.

Activity	Quantity	Units	Comments
Quantity of material removed from MS4		tons	direct measure; report in tons.
Quantity of debris removed that could have enter MS4 (i.e. street sweeping, litter removal)		tons	direct measure; report in tons.

**QUALITATIVE ASSESSMENT:**

1. Describe the major accomplishments of this component over the past year.

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2. Summarize the educational and outreach activities conducted for this component over the past year to educate staff on water quality principles.

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3. Summarize new activities or improvements to be implemented next year as a result of your self-assessment.

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4. Other comments.

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**FINANCIAL ASSESSMENT:**

Estimated annual storm water expenditures:

Personnel Expenditures: \_\_\_\_\_

Non-personnel Expenditures: \_\_\_\_\_